

**U.S. Department of Energy  
Naval Reactors Laboratory Field Office**

**Knolls Laboratory**

National Environmental Policy Act (NEPA) Categorical Exclusion (CX)  
Determination Summary Form

**KNOLLS LABORATORY Q3 YARD RCRA FACILITY INVESTIGATION AND  
EASTSIDE BUILDING EXPANSION PROJECT**

**REFERENCE**

10 CFR Part 1021, Department of Energy National Environmental Policy Act  
Implementing Procedures, Subpart D, Typical Classes of Actions, Appendix B

**PROJECT SCOPE DISCUSSION**

The Q3 Yard Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) and Eastside Building Expansion Project is being undertaken to determine the nature and extent of chemical releases in the Q3 Yard Area of Concern (AOC) and implement remediation actions (if necessary), dismantle and demolish the Q Complex, and re-route and install new utilities and construct new buildings in the eastern portion of the Knolls Laboratory. The Q3 Yard RFI is the precursor to future expansion of utilities and new building construction in the Q3 Yard AOC and along the eastern portion of the Knolls Laboratory. The objective of the Q3 Yard RFI is to determine the nature and extent of volatile organic compound releases and other potential releases of semi-volatile organic compounds, pesticides, polychlorinated biphenyls, and metals to environmental media in the Q3 Yard. Additionally, in order to support near-term utility and building isolation, building demolition, new utility installation, and new building construction in the Q3 Yard, the RFI analytical results will be utilized to determine on-site re-use or off-site disposal of soil within the planned excavation areas.

The Q3 Yard AOC encompasses Buildings Q1, Q3, Q4, Q5, Q7, Q8, Q9, and Q10 and adjacent land areas.

Extensive radiological characterization has been conducted in the Q3 Yard area.

The scope of the Q3 Yard RFI and Eastside Building Expansion Project will involve the following:

- Geophysical survey and soil vapor investigation;
- Soil Investigation, including shallow soil borings, deep soil borings, test pits and associated soil sample collection;
- Groundwater Investigation, including well installation and decommissioning, and groundwater sampling;
- Surface water and seep sampling;

- Chemical remediation (if necessary) of the AOC with New York State Department of Environmental Conservation (NYSDEC) concurrence;
- Limited excavation for disconnection and rerouting of utilities including steam and condensate, domestic water, sanitary sewer, electric power, computer networking cable, telephone cable, security systems, fiber optic cabling, fire alarm systems, fire sprinkler and compressed air systems; and installation of a manhole and electrical duct bank, and security fencing,
- Dismantlement and demolition of Q Complex (Q4, Q5, Q7, Q8, Q9, and Q10), including radiological release actions, demolition and removal of the structures including concrete slabs and underlying piping, and the investigation of the two Solid Waste Management Units (SWMUs) beneath the floor slab of Building Q4, and potential remediation of the SWMUs with NYSDEC concurrence;
- Notifications to the New York State Historic Preservation Office (SHPO); and
- Final environmental and radiological release of the Q3 Yard AOC for future building expansion, which includes construction of new buildings designed for office and meeting space, analytical chemistry laboratories, and R&D support facilities.

The project does not violate applicable regulatory requirements, require construction or major expansion of waste handling facilities, result in unpermitted releases of hazardous substances, or adversely affect environmentally sensitive resources, including wetlands. The project does not involve genetically engineered organisms or species. There are no extraordinary circumstances related to the proposed action. The project has not been segmented to meet the definition of a categorical exclusion and is not connected to other actions with potentially significant and/or cumulative impacts.

## **CONCLUSION**

The Knolls Laboratory Q3 Yard RFI and Eastside Building Expansion Project meets the requirements to be categorically excluded from additional NEPA documentation under 10 CFR 1021 Subpart D, Appendix B, B1.11, B1.15, B1.16, B1.17, B1.23, B1.27, B1.33, B1.34, B2.2, B3.1, B4.7, and B6.1. Specifically, the categorical exclusions that apply are as follows:

### *B1.11 Fencing*

Installation of fencing, including, but not limited to border marking, that would not have the potential to significantly impede wildlife population movement (including migration) or surface water flow.

### *B1.15 Support buildings*

Siting, construction or modification, and operation of support buildings and support structures (including, but not limited to, trailers and prefabricated and modular buildings) within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible). Covered support buildings and structures include,

but are not limited to, those for office purposes; parking; cafeteria services; education and training; visitor reception; computer and data processing services; health services or recreation activities; routine maintenance activities; storage of supplies and equipment for administrative services and routine maintenance activities; security (such as security posts); fire protection; small-scale fabrication (such as machine shop activities), assembly, and testing of non-nuclear equipment or components; and similar support purposes, but exclude facilities for nuclear weapons activities and waste storage activities, such as activities covered in B1.10, B1.29, B1.35, B2.6, B6.2, B6.4, B6.5, B6.6, and B6.10 of this appendix.

#### *B1.16 Asbestos removal*

Removal of asbestos-containing materials from buildings in accordance with applicable requirements (such as 40 CFR part 61, "National Emission Standards for Hazardous Air Pollutants"; 40 CFR part 763, "Asbestos"; 29 CFR part 1910, subpart I, "Personal Protective Equipment"; and 29 CFR part 1926, "Safety and Health Regulations for Construction"; and appropriate state and local requirements, including certification of removal contractors and technicians).

#### *B1.17 Polychlorinated biphenyl removal*

Removal of polychlorinated biphenyl (PCB)-containing items (including, but not limited to, transformers and capacitors), PCB-containing oils flushed from transformers, PCB-flushing solutions, and PCB-containing spill materials from buildings or other aboveground locations in accordance with applicable requirements (such as 40 CFR part 761).

#### *B1.23 Demolition and disposal of buildings*

Demolition and subsequent disposal of buildings, equipment, and support structures (including, but not limited to, smoke stacks and parking lot surfaces), provided that there would be no potential for release of substances at a level, or in a form, that could pose a threat to public health or the environment.

#### *B1.27 Disconnection of utilities*

Activities that are required for the disconnection of utility services (including, but not limited to, water, steam, telecommunications, and electrical power) after it has been determined that the continued operation of these systems is not needed for safety.

#### *B1.33 Stormwater runoff control*

Design, construction, and operation of control practices to reduce stormwater runoff and maintain natural hydrology. Activities include, but are not limited to, those that reduce impervious surfaces (such as vegetative practices and use of porous pavements), best management practices (such as silt fences, straw wattles, and fiber rolls), and use of

green infrastructure or other low impact development practices (such as cisterns and green roofs).

#### *B1.34 Lead-based paint containment, removal, and disposal*

Containment, removal, and disposal of lead-based paint in accordance with applicable requirements (such as provisions relating to the certification of removal contractors and technicians at 40 CFR part 745, "Lead-Based Paint Poisoning Prevention In Certain Residential Structures").

#### *B2.2 Building and equipment instrumentation*

Installation of, or improvements to, building and equipment instrumentation (including, but not limited to, remote control panels, remote monitoring capability, alarm and surveillance systems, control systems to provide automatic shutdown, fire detection and protection systems, water consumption monitors and flow control systems, announcement and emergency warning systems, criticality and radiation monitors and alarms, and safeguards and security equipment).

#### *B3.1 Site characterization and environmental monitoring*

Site characterization and environmental monitoring (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) of characterization and monitoring devices, and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include, but are not limited to:

- (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing;
- (b) Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools);
- (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells;
- (d) Aquifer and underground reservoir response testing;
- (e) Installation and operation of ambient air monitoring equipment;
- (f) Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck- or mobile-scale equipment, and modification, use, and plugging of

boreholes);

(g) Sampling and characterization of water effluents, air emissions, or solid waste streams;

(h) Installation and operation of meteorological towers and associated activities (such as assessment of potential wind energy resources);

(i) Sampling of flora or fauna; and

(j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.

#### *B4.7 Fiber optic cable*

Adding fiber optic cables to transmission facilities or burying fiber optic cable in existing powerline or pipeline rights-of-way. Covered actions may include associated vaults and pulling and tensioning sites outside of rights-of-way in nearby previously disturbed or developed areas.

#### *B6.1 Cleanup actions*

Small-scale, short-term cleanup actions, under RCRA, Atomic Energy Act, or other authorities, less than approximately 10 million dollars in cost (in 2011 dollars), to reduce risk to human health or the environment from the release or threat of release of a hazardous substance other than high-level radioactive waste and spent nuclear fuel, including treatment (such as incineration, encapsulation, physical or chemical separation, and compaction), recovery, storage, or disposal of wastes at existing facilities currently handling the type of waste involved in the action. These actions include, but are not limited to:

(a) Excavation or consolidation of contaminated soils or materials from drainage channels, retention basins, ponds, and spill areas that are not receiving contaminated surface water or wastewater, if surface water or groundwater would not collect and if such actions would reduce the spread of, or direct contact with, the contamination;


(b) Removal of bulk containers (such as drums and barrels) that contain or may contain hazardous substances, pollutants, contaminants, CERCLA-excluded petroleum or natural gas products, or hazardous wastes (designated in 40 CFR part 261 or applicable state requirements), if such actions would reduce the likelihood of spillage, leakage, fire, explosion, or exposure to humans, animals, or the food chain;

(c) Removal of an underground storage tank including its associated piping and underlying containment systems in accordance with applicable requirements (such as RCRA, subtitle I; 40 CFR part 265, subpart J; and 40 CFR part 280, subparts F and G) if such action would reduce the likelihood of spillage, leakage, or the spread of, or direct contact with, contamination;

(d) Repair or replacement of leaking containers;

(e) Capping or other containment of contaminated soils or sludges if the capping or containment would not unduly limit future groundwater remediation and if needed to reduce migration of hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products into soil, groundwater, surface water, or air;

- (f) Drainage or closing of man-made surface impoundments if needed to maintain the integrity of the structures;
- (g) Confinement or perimeter protection using dikes, trenches, ditches, or diversions, or installing underground barriers, if needed to reduce the spread of, or direct contact with, the contamination;
- (h) Stabilization, but not expansion, of berms, dikes, impoundments, or caps if needed to maintain integrity of the structures;
- (i) Drainage controls (such as run-off or run-on diversion) if needed to reduce offsite migration of hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum or natural gas products or to prevent precipitation or run-off from other sources from entering the release area from other areas;
- (j) Segregation of wastes that may react with one another or form a mixture that could result in adverse environmental impacts;
- (k) Use of chemicals and other materials to neutralize the pH of wastes;
- (l) Use of chemicals and other materials to retard the spread of the release or to mitigate its effects if the use of such chemicals would reduce the spread of, or direct contact with, the contamination;
- (m) Installation and operation of gas ventilation systems in soil to remove methane or petroleum vapors without any toxic or radioactive co-contaminants if appropriate filtration or gas treatment is in place;
- (n) Installation of fences, warning signs, or other security or site control precautions if humans or animals have access to the release; and
- (o) Provision of an alternative water supply that would not create new water sources if necessary immediately to reduce exposure to contaminated household or industrial use water and continuing until such time as local authorities can satisfy the need for a permanent remedy.

NRLFO Approval:  Date: 8/7/18  
D. A. Delwiche CX Determination Date